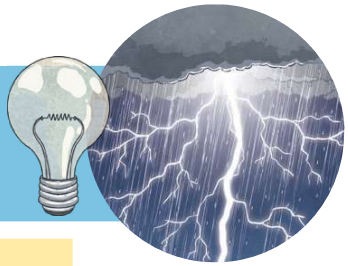
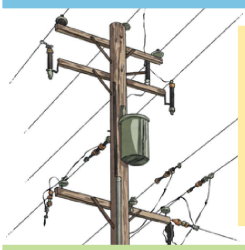
Electrical Inventors

In Summary: Electrical Pioneers



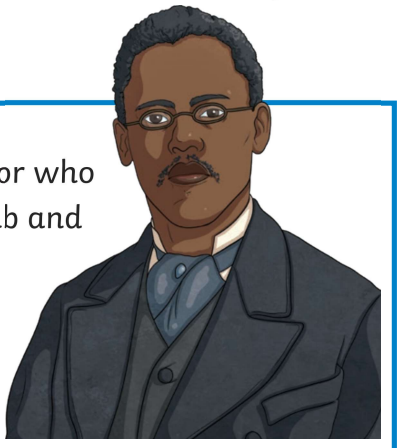
Thomas Edison (1847-1931)
- A pioneer of the first electric lightbulb, he also invented the phonograph (a machine that could record and replay sound).



Nikola Tesla (1856-1943)
- His inventions paved the way for future technology, ranging from electric motors to remote controls.

Alessandro Volta (1745-1827)
- He is credited as the pioneer of the electric battery.

In Focus: Lewis Latimer (1848-1928)



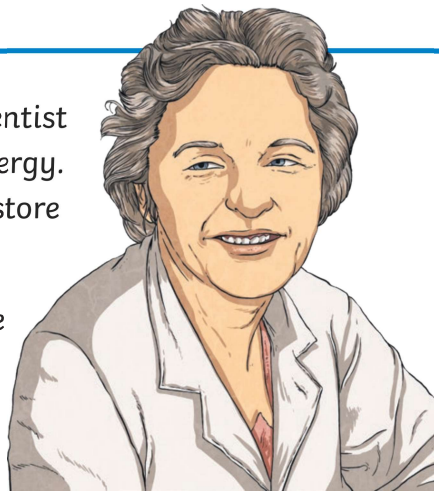
Lewis Howard Latimer was an African American inventor who contributed to the invention of both the electric lightbulb and the telephone.

He joined the navy as a teenager and served in the American Civil War. After the war, he worked for a patent law firm and taught himself mechanical drawing. He was promoted from an office clerk to a draughtsperson and went on to create many important technical designs.

In 1884, Lewis began working for Thomas Edison, the man now known as the inventor of the lightbulb. Lewis helped Edison by creating detailed diagrams of the lightbulb. Lewis's technical skills were vital in producing the diagrams and also helped to improve Edison's lightbulb. Lewis did all the legal work to ensure Edison got the credit for the design.

Before working for Edison, Lewis also drafted the drawings that Alexander Graham Bell used to patent the first telephone in 1876.

In Focus: Mária Telkes (1900-1995)



Mária Telkes was a Hungarian-born American scientist best known for her research into the use of solar energy. This meant inventing devices that were able to store and use energy from sunlight.

Mária was raised in Budapest and studied at the city's university before moving to the USA. Her studies earned her a degree and PhD before she took up a job as a biophysicist, combining a range of scientific skills.

In her position at the Cleveland Clinic Foundation, Mária worked with an American surgeon called George Washington Crile. Their work included the creation of a photoelectric device that recorded brainwaves.

During the Second World War, Mária created a device that used solar power to make seawater drinkable by removing the salt. This was one of her most important inventions and saved the lives of many people stranded at sea. She is probably best known for her creation of the first house designed with a heating system that ran completely on solar energy.

Her lifetime of research into solar energy and inventions led to Mária being known by some as 'The Sun Queen'. She won several awards for her research and there are many schools named after her today, especially in the USA where she worked for many years.

Electrical Inventors Questions

1. Which of these inventions were linked with Thomas Edison? Tick **two**.

   ◯ telephone
   ◯ lightbulb
   ◯ battery
   ◯ phonograph

2. Which of these statements best describes Lewis Latimer's career? Tick **one**.

   ◯ He worked for a patent law firm and then decided to join the navy.
   ◯ After becoming a mechanical engineer, he joined the navy.
   ◯ After serving in the navy, he earned promotions in a patent law firm.
   ◯ He worked as a draughtsperson and then as a biophysicist.

3. Give one example of how Lewis Latimer helped Thomas Edison with his invention of the lightbulb.

   _____

4. Who is mainly credited with the invention of the telephone?

   _____

5. Number these events from 1 to 4 to show the correct order that they occured in the life of Mária Telkes.

   ☐ She created a device to make seawater drinkable.
   ☐ She took up a job as a biophysicist in the USA.
   ☐ She was born and raised in Hungary.
   ☐ She studied at university in Budapest.

6. What was the purpose of the device that Mária Telkes created alongside an American surgeon?

   _____

   _____

7. Why do you think the device to make saltwater drinkable was described as 'one of her most important inventions'.

   _____

   _____

8. Which of these statements show the correct years of birth or death. Tick **three**.

   ◯ Nikola Tesla was born in 1856.
   ◯ Alessandro Volta was born in 1827.
   ◯ Lewis Latimer was born in 1848.
   ◯ Nikola Tesla died in 1943.
   ◯ Alessandro Volta died in 1745.
   ◯ Lewis Latimer died in 1884.

Electrical Inventors **Answers**

1. Which of these inventions were linked with Thomas Edison? Tick **two**.

   ◯ telephone
   ☑ **lightbulb**
   ◯ battery
   ☑ **phonograph**

2. Which of these statements best describes Lewis Latimer's career? Tick **one**.

   ◯ He worked for a patent law firm and then decided to join the navy.
   ◯ After becoming a mechanical engineer, he joined the navy.
   ☑ **After serving in the navy, he earned promotions in a patent law firm.**
   ◯ He worked as a draughtsperson and then as a biophysicist.

3. Give one example of how Lewis Latimer helped Thomas Edison with his invention of the lightbulb.

   Accept any of the following:
   He created detailed diagrams of the lightbulb.
   He used his technical (mechanical drawing) skills.
   He did all the legal work.
   He helped to improve the design.

4. Who is mainly credited with the invention of the telephone?

   Alexander Graham Bell

5. Number these events from 1 to 4 to show the correct order that they occured in the life of Mária Telkes.

4	She created a device to make seawater drinkable.
3	She took up a job as a biophysicist in the USA.
1	She was born and raised in Hungary.
2	She studied at university in Budapest.

6. What was the purpose of the device that Mária Telkes created alongside an American surgeon?

   (It was a photoelectric device) to record brainwaves.

7. Why do you think the device to make saltwater drinkable was described as 'one of her most important inventions'.

   The device saved people's lives (if they were stranded at sea).

8. Which of these statements show the correct years of birth or death. Tick **three**.

   ☑ **Nikola Tesla was born in 1856.**
   ◯ Alessandro Volta was born in 1827.
   ☑ **Lewis Latimer was born in 1848.**
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